



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

May 4, 2015

Mr. Daniel Koenig  
Federal Transit Administration  
1990 K Street, NW Suite 510  
Washington, D. C. 20006

Re: Draft Environmental Impact Statement, Virginia Beach Transit Extension Study,  
Virginia, February 2015, CEQ# 20150073

Dear Mr. Koenig:

In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the United States Environmental Protection Agency (EPA) has reviewed the Virginia Beach Transit Extension Study Draft Environmental Impact Statement (DEIS). The study area for this DEIS extends from Hampton Roads Transit (HRT) system's Newtown Road Station to the Virginia Beach Oceanfront Resort Area. The DEIS evaluates a range of alternatives for extending high capacity fixed guideway transit service from the eastern terminus of the The Tide (HRT system name) light rail transit (LRT) system. The purpose and need for the proposed project is to address east-west mobility, impacts to the City of Virginia Beach's economy caused by lack of mobility and congestion, and slow and unreliable transit service caused by congestion.

The DEIS evaluates a no build alternative and four alignment alternatives, each with two different transit modes (LRT and bus rapid transit (BRT)). The length of the alignments varies from 3 miles to 13.5 miles. The build alternatives include parking facilities, stations, and bicycle and pedestrian facilities. Impacts from the build alternatives include up to three navigable water crossings and impacts to wetlands ranging from 3.58 acres to 10.49 acres. At this time no preferred alternative has been identified.

EPA understands the purpose and need for the proposed action and realizes that the project is in an early planning phase, where details on impacts to the natural and human environment are undefined. However, as a result of our review EPA has identified some deficiencies and areas of concern, including a clear evaluation of the degree to which each alternative meets the project's purpose and need, an assessment of resources and mitigation, environmental justice, children's environmental health, cumulative impacts, and community impacts. We suggest that efforts to work with the public as the project moves forward be robust; future community involvement process and strategy could be expanded and established as part of the NEPA study and a Record of Decision. We look forward to additional information being

provided in the Final EIS including the assessment of environmental resources (aquatic and upland), methods for maintaining mobility during construction, techniques to reduce air emissions and fugitive dust, noise control practices, and vibration control techniques. Where ever possible, impacts to environmental and community resources associated with this project should be further avoided and minimized as the project design moves forward.

EPA rated the DEIS an EC-2 (Environmental Concerns/Insufficient Information), which indicates that we have environmental concerns regarding the proposal and that there is insufficient information in the document to fully assess the environmental impacts. The rating system can be found on the website [www.epa.gov/compliance/nepa/comments/ratings.html](http://www.epa.gov/compliance/nepa/comments/ratings.html). Thank you for providing EPA with the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Barbara Okorn; she can be reached at 215-814-3330.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Barbara Rudnick', written in dark ink.

Barbara Rudnick  
NEPA Team Leader  
Office of Environmental Programs

Enclosure

**Enclosure**  
**Detailed Technical Comments Virginia Beach Extension Study DEIS**

*Alternatives*

- Additional discussion should be provided describing how each alternative meets the project needs.
- EPA supports evaluation and incorporation as part of the build alternatives, design that can potentially reduce environmental impacts such as pervious surface for the LRT transitway, low impact development BMPs for park and rides that may be included in the infrastructure project, research into low emissions vehicles for the BRT option (possibility of partial zero emissions hybrid buses), and low emissions equipment use during construction.

*Noise and Vibration*

- It should be stated when a public communication plan will be developed; it would be useful if a description of future public outreach was presented in the NEPA document. Please state how the public will be informed about noise and vibration estimated to be caused by the project and communication on mitigation measures that will be developed.
- We suggest a vibration monitoring and mitigation plan be developed and shared with the public.
- We suggest that buildings be monitored, including pre-construction building inspections, and follow-up post-construction inspections for those properties that will be impacted by vibration. We suggest memorializing what actions will be taken should inspections reveal damage or other conditions caused by construction vibrations.
- EPA suggests that should major changes in vibration data arise during final design, or during vibration monitoring, the information be brought back before the public in some manner.
- Where practicable, EPA suggests that individual project construction activities are scheduled to avoid or minimize adverse impacts. Consider using noise barriers, including temporary barriers, semi-permanent barriers, noise curtains, and/or noise tents. Consider using vibration reducing techniques or mitigation measures.
- Coordinate construction activities with projects under construction in adjacent and nearby locations to avoid or minimize impacts.
- Consider condition of surrounding buildings, structures, infrastructure, and utilities, where appropriate. Consider whether any special protection is needed for historic properties.
- Prepare contingency measures in the event established limits are exceeded. Consider steps to avoid generating noise/vibration from cumulative operations that may exceed noise limits.
- Consider establishing a public communication plan in order to keep the public informed and attempt to reduce public frustration. This plan could include regular public meetings, emails, a hotline, and other notices.
- Consider whether a noise technician/acoustical engineer is needed during peak construction phases.

- Consider restricting the use of certain types of equipment during noise/vibration-sensitive hours. Consider restricting night work all together.
- Consider whether temporary relocations of noise/vibration-sensitive receptors are an option or whether relocations are necessary.

#### *Stormwater, Aquatic Resources, and Vegetation*

- The document should address how the project's alternatives conform to the Chesapeake Bay Executive Order 13508.
- The document should provide a discussion of the presence of TMDLs 303(d) and streams and the potential to further impact these reaches.
- A quantitative assessment of impacts to upland and aquatic habitat and wildlife should be presented in the Final EIS.
- The document should include an analysis of how the alternatives will potentially impact water quality.
- The design should incorporate Low-Impact Development (LID) designs to further reduce potential impacts to the design corridor.
- The design of the alternatives should incorporate stormwater management treatment features that are placed in uplands and not in waters of the U.S. (WOUS).
- As the jurisdictional determination described in the Appendix M goes forward, we requests FTA to fully document the presence of high value wetlands, including those that contain bald cypress-tupelo wetlands and systems. If the project moves forward to applying for a Clean Water Act Section 404 permit, these high value wetlands in addition to tidal areas with spartina, should be avoided. It should be understood that high quality systems are difficult to replace or find appropriate mitigation.
- A functional assessment be provided on the larger wetlands complexes that will be impacted and extend outside of the project corridor. Additional information should be provided on the streams that will be impacted. The chemical, physical, and biological characteristics should be presented.
- Additional efforts should be made to avoid and minimize aquatic impacts.
- The project team should investigate opportunities to maintain or re-establish hydrology across the transportation system. If hydrology is impounded by barriers such as bermed areas in rail right-of-way, engineered breaks in the berm may be considered.
- Additional information should be provided regarding a mitigation plan that will fully replace the functions and values of the wetlands proposed to be impacted.
- The mitigation should be in the respective subwatershed and have a monitoring plan with physical, chemical, and biological success criteria. An adaptive management plan should also be created to address mitigation issues.

#### *Environmental Justice*

- The methodology used to identify low-income populations seems reasonable, but the low-income benchmark value is not readily apparent in the table and assessment. Please clearly state the low-income benchmark.
- The assessment of potential impacts seems to generally capture the potential concerns, however greater detail should be provided for the assessment of those impacts and the practices that will be used to mitigate the potentially adverse impacts.

### *Children's Environmental Health*

Executive Order 13045 on Children's Health and Safety directs that each Federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to health and safety risks. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. The DEIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children's health.

- Children's Environmental Health does not appear to have been included in the DEIS. FTA should address Executive Order 13045 for the Protection of Children from Environmental Health Risks and Safety Risks. Without analysis or documentation on this topic, it cannot be assumed that there is no potential risk associated with the proposed project that may adversely affect children's health.
- Evaluation of risks to children's health should include potential direct, indirect and cumulative health impacts in the project area. We also suggest evaluating noise and vibration impacts associated with the project specific to children, identifying areas where children reside or children's facility.

### *Cumulative Impacts*

- The EIS should include a thorough cumulative impact analysis for past, present and reasonably foreseeable projects occurring in the project areas. EPA suggests that a secondary and cumulative effects analysis begin with defining the geographic and temporal limits of the study; this is generally broader than the study area of the project. The document should address potential indirect and cumulative effects in the project areas, and analysis may aid in the identification of resources that are likely to be adversely affected by multiple projects, and sensitive resources that could require additional measures of protection.

### *Other Resources and General Comments*

- Clearly state the anticipated construction time periods for each build alternative.
- Since cultural resources have not been identified to date, EPA is concerned that there may be properties covered under the National Historic Preservation Act Section 106 that may be affected by the proposed action.
- While the DEIS does include a section analyzing Greenhouse Gas emissions, we believe the Council on Environmental Quality's December 2014 revised draft guidance for Federal agencies' consideration of Greenhouse Gas (GHG) emissions and climate change impacts in NEPA outlines a reasonable approach, and we recommend that FTA use that draft guidance to help outline the framework for its analysis of these issues. Accordingly, we recommend the EIS include an estimate of the GHG emissions associated with the project, qualitatively describe relevant climate change impacts, and analyze reasonable alternatives and/or practicable mitigation measures to reduce project-related GHG emissions. In addition, we recommend that the NEPA analysis address the appropriateness of considering changes to the design of the proposal to incorporate GHG reduction measures and resilience to foreseeable climate change. The final EIS should make clear whether commitments have been made to ensure implementation of design or

other measures to reduce GHG emissions or to adapt to climate change impacts .